

WHAT IS CLAIMED IS:

1. A brush abrasion detector of a vehicle generator comprising:

5 a brush that is located being slidably press-fitted to a slip ring, which is provided at an end portion of a field winding of a generator, and supplies an excitation current from a battery to said field winding;

10 a current detection circuit for detecting a current value flowing through said field winding of the generator via said brush;

an output voltage detection circuit for detecting an output voltage value from the mentioned generator; and

15 a brush abrasion determination circuit for determining an abrasion state of said brush based on a current value detected by said current detection circuit or an output voltage value detected by said output voltage detection circuit.

2. The brush abrasion detector of a vehicle generator according to claim 1, wherein current interruption control means  
20 for interrupting and controlling a current flowing through said field winding depending on whether or not an output voltage from the generator is larger than a target value is provided; and

25 said brush abrasion determination circuit determines an abrasion state of said brush based on an average value of interrupted current detected by said current detection circuit.

3. A brush abrasion detector of a vehicle generator comprising: a brush that is located being slidably press-fitted  
30 to a slip ring, which is provided at an end portion of a field

winding of a generator, and supplies an excitation current from a battery to said field winding; a revolution speed detection circuit for detecting the number of revolutions of said generator; and a brush abrasion determination circuit  
5 determining an abrasion state of said brush based on the number of revolutions detected by said revolution speed detection circuit.

4. The brush abrasion detector of a vehicle generator  
10 according to claim 1, wherein a material having a large contact resistance is implanted in said brush at a portion of the limit of abrasion.

5. The brush abrasion detector of a vehicle generator  
15 according to claim 2, wherein a material having a large contact resistance is implanted in said brush at a portion of the limit of abrasion.

6. The brush abrasion detector of a vehicle generator  
20 according to claim 3, wherein a material having a large contact resistance is implanted in said brush at a portion of the limit of abrasion.

7. The brush abrasion detector of a vehicle generator  
25 according to claim 1, wherein said brush abrasion limit portion possesses such a configuration that a contact area with the slip ring becomes smaller.

8. The brush abrasion detector of a vehicle generator  
30 according to claim 2, wherein said brush abrasion limit portion

possesses such a configuration that a contact area with the slip ring becomes smaller.

9. The brush abrasion detector of a vehicle generator  
5 according to claim 3, wherein said brush abrasion limit portion possesses such a configuration that a contact area with the slip ring becomes smaller.